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Cc: []
Bcc: []
From: CN=Phil North/OU=R10/O=USEPA/C=US
Sent: Sat 4/10/2010 12:54:16 AM
Subject: Smolt emigration

Doug,

I looked at the Crawford smolt studies paper that Sarah and Kerim cited. That study counted 325,914,951 smolts migrating from the Kvichak in 2000. It said this constituted 87 smolts per spawner. But it also said that this was about twice the ten year average of 42 smolts per spawner. Applying the three estimates (10%, 42 smolt/spawner, 87 smolts/spawner) to the 2008 Kvichak escapement numbers I get 483,000,000, 115,920,000, and 240,120,000 smolts respectively. The later two are 1.3% and 5% egg to smolt survival.

So it really does appear that the 10% ADFG estimate is too high. Which makes 1.6 billion smolts too high.

I have not yet looked at the Bradford paper where they S and K got their lower estimate.

I don't know where the ADFG 10% egg to smolt estimate comes from except that I got it from a retired com-fish biologist. Are Sarah and Kerim comfortable with this number.

Ex. 5 - Deliberative

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I called the retired biologist to see if he can refer me to the source of the 10% number but he is on vacation. I'll call him when he gets back.

On thinking about it, all the numbers I used are reported in the ADFG com-fish reports for Bristol Bay. I would prefer they look in and cite those reports to ensure they get the correct numbers. <http://www.cf.adfg.state.ak.us/region2/finfish/salmon/bbay/brbpos08.pdf>. Mine was just a back-of-the-napkin kind of estimate. I'd rather leave the real numbers to the pros.

Have a good weekend.

Phil

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